

ATLANTA VA MEDICAL CENTER, HEMATOLOGY DEPARTMENT

Hematology Normal, Therapeutic & Critical Ranges					
Hematology Normal & Therapeutic Ranges				Critical Values	
Parameter	Reference Range	Therapeutic Range		Below	Above
WBC	4 - 11X10 ³ /uL			2.0 X10 ³ /uL	50.0 X10 ³ /uL
RBC Male	4.63 - 6.08X10 ⁶ /uL				
Female	3.93 - 5.22X10 ⁶ /uL				
HGB Male	13.7 - 17.5 g/dL			6.0 g/dL	20.0 g/dL
Female	11.2 - 15.7 g/dL			6.0 g/dL	20.0 g/dL
HCT Male	40.1 - 51.0%			18.0%	60.0%
Female	34.1 - 44.9%			18.0%	60.0%
MCV Male	80 - 100 fL				
MCH	25.7 - 32.2 pg				
MCHC	32 – 37 g/dL				
PLATELETS	150 - 400 X10 ³ /uL			26X10 ³ /uL	999X10 ³ u/L
MPV	9.4 - 12.4 fL				
RDW	11.6 - 16.5%				
Neutrophil % auto	37.5 - 75.5%				
Neutrophil % manual	37 – 75%				
Neutrophil #	1.40 - 6.50X10 ³ /uL				
Lymphocyte % auto	20.0 - 55.5%				
Lymphocyte % manual	20 – 56%				
Lymphocyte #	1.32 - 3.57X10 ³ /uL				
Monocyte % auto	2.5 -12.0%				
Monocyte % manual	2 – 12%				
Monocyte #	0.30 - 0.82 X10 ³ /uL				
Eosinophil % auto	0.0 – 6.0%				
Eosinophil % manual	0 – 6%				
Eosinophil #	0.04 - 0.54 X10 ³ /uL				
Basophil % auto	0.0 - 2.5%				
Basophil % manual	0 – 3%				
Basophil #	0.01 - 0.08 X10 ³ /uL				
Band % manual	0 – 5%				
Retic %	0.51 - 1.81%				
Retic #	0.0284 – 0.1212 X10 ⁶ /uL				
NRBC /100 WBC	0.0 – 0.2				
NRBC#	0.00 - 0.01 x 10 ³ /uL				
NRBCRE%	0.0 – 0.2%				

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IG%	0.00 - 0.3%				
IG#	0.01-0.16X10 ³ /uL				
IRF Male	5.1 - 16.6 %				
Female	5.8 – 19.2 %				
PROTHROMBIN	9.1 - 13.2 sec				
APTT	23.3 - 36.6 sec	63.0 -102.1 sec			>150 sec
INR	0.8 - 1.2				>4.5
INR- Low Intensity		2.0 - 3.0 sec			
INR- High Intensity		2.5 - 3.5 sec			
FACTOR VIII	55 - 200%			<20%	
FIBRINOGEN QFA	173 - 454 mg/dL			<100 mg/dL	
D-DIMER HS 500	<=500ng/mL /DDU				
HEPARIN	0.30 - 1.00 IU/mL				>1.10 IU/mL
HEPARIN- Unfractionated		0.30 - 0.70 IU/mL			>1.10 IU/mL
HEPARIN- Low Molecular					>1.10 IU/mL
FDP	<5				
SICKLE CELL SCREEN	Negative				
ESR Male< Age 50	<15 mm/hr				
Male> Age 50	<20 mm/hr				
Female< Age 50	<20 mm/hr				
Female> Age 50	<30 mm/hr				
CSF-Total Nucleated Cells	0 - 5				
MN%	15 - 80				
PMN%	0 - 6				
SEMEN ANALYSIS					
Volume	2 - 5 ml				
Motility	40 - 100%				
Forward Progression	Grade 2 - 4				
Liquefaction	< 30 min				
pH	7.5 - 8.0				
Sperm Count	>10 mil/mL				
Morphology	>=40% should be normal				
BINAXNOW					POSITIVE
MALARIA SMEAR					POSITIVE

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All critical values must be reported to the ordering physical or ward immediately. The performing tech must document in the computer: date, time, name of person receiving results, read back and tech's initial.

Note: Hematology critical values that occur within 72 hours during the same admission do not need to be called to the responsible provider. Critical documentation will be entered into VISTA in the following manner:

CODE:	MESSAGE DISPLAYED:				
CRV1	Results verified at (date, time & initial)				
CRV2	Ordering Provider being contacted				
CRV3	Results called to (Dr's name & time)				
CRV4	Attempted and Failed to Contact at (insert date and time)				
CRV5	Will Continue to Attempt to Notify Provider				
RBAV	Repeated Back and Verified at (insert date and time)				
PCRC	Previous Critical Results Called on (insert date) at (insert time)				
INFECTIOUS DISEASE CLINIC CRITICAL VALUES					
Because many patients followed in this clinic are expected to have neutropenia, anemia or thrombocytopenia, ID clinic physicians					
must be notified only in the case of WBC <2000 cu/mm, Hct <18% or Plt <25000 cu/ mm.					
DIFFERENTIALS					
Differentials cell counts will be added to the following CBC					

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specimens if not already ordered:					
A. WBC <4,000 or > 15,000/ cu mm					
B. Outpatients or new admissions with:					
	WBC <4,000 or <11,000 /cu mm				
C. Smears will be made and saved for a week on all outpatient and new admission samples, regardless if a diff was performed.	RBC <3.5 X10* or > 5.5 X10*				
D. Any smears showing abnormal cells or parasites are to be examined by the Hematology supervisor and Clinical Pathologist.	HGB <10 or > 17.0 g/dL				
The primary physician must be notified and the Clinical pathology resident or attending contacted at that physician's request.	MCV <80 or > 105 fL				
Notification should be documented as a comment in VISTA.					